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10/566,274

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Vladimir Grouzdev

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NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD, 11TH FLOOR  
ARLINGTON, VA 22203

EXAMINER

KRISHNAN, VIVEK V

ART UNIT

PAPER NUMBER

2145

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,274	<b>Applicant(s)</b> GROUZDEV ET AL.	
	<b>Examiner</b> VIVEK KRISHNAN	<b>Art Unit</b> 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>January 30, 2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This is a Non-Final Office Action Correspondence in response to U.S. Application No. 10/566274 filed on July 13, 2006, claiming a U.S. National Stage entry under 35 U.S.C. 371 of International Application PCT/EP2004/006606, filed on June 18, 2004, which claims priority to EP 03291941.7, filed on July 30, 2003. Claims 1-20 are pending.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 19 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. It is not clear from either the specification or the claims whether the “computer program product” is a transmission medium, storage medium, etc. The broadest reasonable interpretation of the claim term “computer program product” encompasses transmission medium and propagated signals. A transmission medium or a propagated signal is a form of energy and is therefore directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 8, 10, 11, 13, 15, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,740,438 to Ratcliff et al. (hereinafter "Ratcliff") (IDS submitted January 30, 2006).

6. As to Claim 1, Ratcliff discloses a computer system configured for communications, comprising:

a processor (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65);

a first operating system running on the processor (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65);

a second operating system running on the processor (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65); and

a network interface for communicating data (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65),

in which the first and second operating systems are arranged to share usage of the network interface (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65, partitions share the use of the network interface);

characterised in that the network interface operates using a single set of network logical addresses common to both operating systems (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65, partitions share the use of network interface and set of network addresses).

7. As to Claim 5, Ratcliff discloses each and every limitation of Claim 1. Ratcliff further discloses a transmission scheduler which is arranged to selectively forward outgoing data packets from the first and second operating systems for transmission through the network interface (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65, forwarding outgoing packets from the multiple operating systems for transmission through the network interface).

8. As to Claim 8, Ratcliff discloses each and every limitation of Claim 1. Ratcliff further discloses a system which is arranged to communicate using Internet protocols (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65).

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9. As to Claim 10, Ratcliff discloses each and every limitation of Claim 8. Ratcliff further discloses a system in which the second operating system comprises a TCP/IP protocol stack (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65).

10. As to Claim 11, Ratcliff discloses each and every limitation of Claim 1. Ratcliff further discloses a system in which said first and second operating systems both operate on a single processor (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65).

11. As to Claim 13, Ratcliff discloses each and every limitation of Claim 1. Ratcliff further discloses a system in which the first operating system has a first subset of address ports and the second operating system has a second subset of address ports, each said subset comprising at least one address port, said first and second subsets being mutually exclusive (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65, partitions using different ports).

12. As to Claim 15, Ratcliff discloses each and every limitation of Claim 1. Ratcliff further discloses code for providing a real time data transmission channel for communicating data and associated control and/or supervisory signals, in which the code comprises:

first code operating under said first operating system for communicating said data  
(Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-

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67, column 6 lines 1-35, column 7 lines 5-65, operating system communicating data over network); and

second code operating under said second operating system for communicating said control and/or supervisory signals (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65, operating system communicating control information over a network).

13. As to Claim 18, Ratcliff discloses a method of providing network access to a computer, comprising providing first and second operating systems on the computer, operating concurrently, characterised by sharing a logical network address and allowing said operating systems to share access to a network interface of said computer (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65).

14. As to Claim 19, Ratcliff discloses a computer program product comprising code for causing a computer to perform the method of claim 18 (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65).

15. As to Claim 20, Ratcliff discloses a computer system configured for communications, comprising:

a processor (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65);

a first operating system running on the processor (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65);

a second operating system running on the processor (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65); and

a network interface (448)-for communicating data (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65),

characterised in that the first and second operating systems are arranged to share usage of the network interface (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65).

### ***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



17. Claims 2-4, 6, 7, 12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratcliff as applied to Claims 1, 5, and 11 above, and further in view of U.S. Patent No. 7,062,766 B2 to Ronkka et al. (hereinafter "Ronkka").

18. As to Claim 2, Ratcliff discloses each and every limitation of Claim 1. Ratcliff does not explicitly disclose, however Ronkka discloses the first operating system is a real time operating system (Ronkka; abstract, column 9 lines 62-67, column 10 lines 1-17, column 15 lines 55-67, and column 16 lines 1-30, two operating systems on a processor and one is a real time operating system).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the operating systems, as disclosed by Ratcliff, to include a real time operating system, as disclosed by Ronkka, in order to provide an operating system that can respond in real time.

19. As to Claim 3, Ratcliff discloses each and every limitation of Claim 1. Ratcliff does not explicitly disclose, however Ronkka discloses the second operating system is a general purpose operating system (Ronkka; abstract, column 9 lines 62-67, column 10 lines 1-17, column 15 lines 55-67, and column 16 lines 1-30, two operating systems on a processor and one is a normal operating system).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the operating systems, as disclosed by Ratcliff, to include a general purpose

operating system, as disclosed by Ronkka, in order to provide a general purpose operating system for standard operations.

20. As to Claim 4, Ratcliff discloses each and every limitation of Claim 1. Ratcliff does not explicitly disclose, however Ronkka discloses code associated with the first operating system is arranged to receive all incoming packets, and to forward to the second operating system those packets which are not specifically for use by the first operating system or applications running thereon (Ronkka; abstract, column 9 lines 62-67, column 10 lines 1-17, column 15 lines 55-67, column 16 lines 1-30, and column 27 lines 19-40, the real time operating system is solely responsible for communication over a network and forwards relevant messages to the normal operating system).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the first and second operating systems, as disclosed by Ratcliff, to include code associated with the first operating system that is arranged to receive all incoming packets, and to forward to the second operating system those packets which are not specifically for use by the first operating system or applications running thereon, as disclosed by Ronkka, in order to provide a system where communication processes are handled in real time by a real time operating system while standard operations are handled by a general purpose operating system.

21. As to Claim 6, Ratcliff discloses each and every limitation of Claim 5. Ratcliff does not explicitly disclose, however Ronkka discloses the transmission scheduler is arranged to give priority to the first operating system (Ronkka; abstract, column 9 lines 62-67, column 10 lines 1-

17, column 15 lines 55-67, and column 16 lines 1-30, priority is given to the real time operating system).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the transmission scheduler, as disclosed by Ratcliff, to include giving priority to the first operating system, as disclosed by Ronkka, in order to attribute greater priority to a real time operating system.

22. As to Claim 7, Ratcliff discloses each and every limitation of Claim 5. Ratcliff does not explicitly disclose, however Ronkka discloses the system in which the transmission scheduler is arranged not to send any packets from the second operating system while there are packets for transmission from the first operating system (Ronkka; abstract, column 9 lines 62-67, column 10 lines 1-17, column 15 lines 55-67, and column 16 lines 1-30, tasks for the real time operating system are completed before tasks for the normal operating system).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the transmission scheduler, as disclosed by Ratcliff, to include not sending any packets from the second operating system while there are packets for transmission from the first operating system, as disclosed by Ronkka, in order to attribute greater priority to a real time operating system.

23. As to Claim 12, Ratcliff discloses each and every limitation of Claim 11. Ratcliff does not explicitly disclose, however Ronkka discloses an inter-operating system communications channel for carrying messages between said first and second operating systems, and/or

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applications running thereon (Ronkka; abstract, column 9 lines 62-67, column 10 lines 1-17, column 15 lines 55-67, column 16 lines 1-30, and column 27 lines 19-40, communication channel between first and second operating systems).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify first and second operating systems, as disclosed by Ratcliff, to include a communications channel for carrying messages between the first and second operating systems, as disclosed by Ronkka, in order to facilitate communications and division of tasks between the operating systems.

24. As to Claim 17, Ratcliff discloses a voice-over-internet communications system, comprising a computer concurrently running first and second operating systems, [...] the second operating system is arranged to communicate signaling and/or supervisory data, using respective first and second TCP/IP stacks sharing a common IP address (Ratcliff; column 1 lines 12-32, column 2 lines 23-67, column 3 lines 19-62, column 5 lines 53-67, column 6 lines 1-35, column 7 lines 5-65).

Ratcliff does not explicitly disclose, however Ronkka discloses the first operating system being a real time operating system and the second operating system being a general purpose operating system, in which the first operating system is arranged to communicate voice data (Ronkka; abstract, column 9 lines 62-67, column 10 lines 1-17, column 15 lines 55-67, column 16 lines 1-30, and column 27 lines 19-40, real time and normal operating systems; the real time operating system communicates voice data).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify first and second operating systems, as disclosed by Ratcliff, to include real time and general purpose operating systems, where the real time operating system is arranged to communicate voice data, as disclosed by Ronkka, in order to facilitate division of tasks between operating systems in a mobile device.

25. Claims 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratcliff as applied to Claims 1 and 15 above, and further in view of Computer Networks to Tanenbaum (hereinafter "Tanenbaum").

26. As to Claim 9, Ratcliff discloses each and every limitation of Claim 1. Ratcliff does not explicitly disclose, however Tanenbaum discloses a system in which the first operating system comprises a UDP/IP stack for handling UDP datagrams (Tanenbaum; 6.4 The Internet Transport Protocols: UDP).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify an operating system comprising a TCP/IP stack, as disclosed by Ratcliff, to include a UDP/IP stack, as disclosed by Tanenbaum, in order to include a connectionless protocol.

27. As to Claim 16, Ratcliff discloses each and every limitation of Claim 15. Ratcliff does not explicitly disclose, however Tanenbaum discloses a system in which the first operating

system is arranged to use a UDP/IP protocol stack to communicate said data (Tanenbaum; 6.4 The Internet Transport Protocols: UDP).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify an operating system comprising a TCP/IP stack, as disclosed by Ratcliff, to include a UDP/IP stack, as disclosed by Tanenbaum, in order to include a connectionless protocol.

28. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ratcliff as applied to Claim 1, and further in view of U.S. Patent Application Publication No. 2004/0083308 A1 to Sebastian et al. (hereinafter "Sebastian")

29. As to Claim 14, Ratcliff discloses each and every limitation of Claim 1. Ratcliff does not explicitly disclose, however Sebastian discloses a system in which the second operating system provides commands allowing a user to configure the network interface (Sebastian; paragraph 24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify an operating system, as disclosed by Ratcliff, to include commands allowing a user to configure a network interface, as disclosed by Sebastian, in order to facilitate user control over network interface configuration.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIVEK KRISHNAN whose telephone number is (571) 270-5009. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VK

/Jason D Cardone/  
Supervisory Patent Examiner, Art Unit 2145